

The Adirondack lean-to is aesthetically pleasing. Favorably located it seems almost an emanation of the forest floor. As a shelter, its marginal protection against wind, rain, and cold enables you to revel in all the minor inconveniences and discomfort of camp life. You confront, in the precise meaning of that verb, the essential facts of life, more truly than Thoreau did in his Walden hut. The open front invites big thoughts. Out there, unscreened after the fire dies down, is the untamed wilderness of our ancestors on the continent. -Jamieson, The Adirondack Reader



Historic Hiking Shelters

White Mountain National Forest Sarah Jordan, Heritage Program Manager







Berlin

Gorha

Coburn Gore

Bethel

South Paris







Lyndonville

St.Johnsbury

Troy

Danville 2

Montpelier

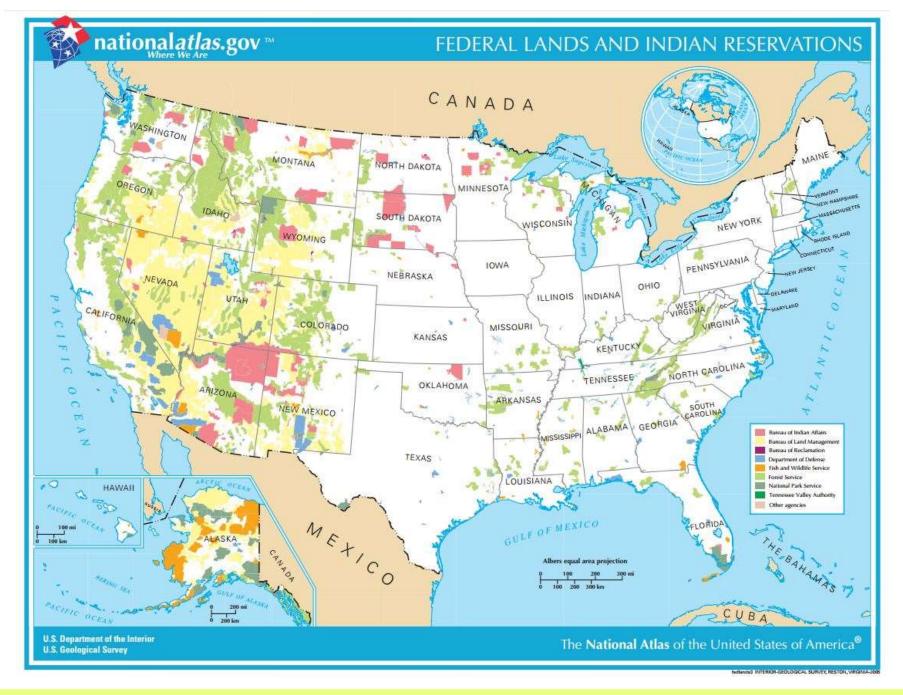


Is it a Park? Or a Forest? What is the difference?





MANAGEMENT	Department of Interior	Department of Agriculture
MISSION AND PURPOSE	"to preserve unimpaired the natural and cultural resources and values of the National Park System for enjoyment, education, and inspiration of this and future generations."	"to sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations."
SIZE	84 million acres	193 million acres



What does that mean for cultural resources?

Organic Act of 1897

- Governs the administration of and lawful public access to National Forest System lands
- Is one authority used to issue permits for archaeological surveys (but not excavations)
 DECFR201.1 and 201.8(p.h)

Antiquities Act of 1906

- Requires permits to remove antiquities from public lands
 Established penalities for removal, destruction, or damage
- to antiquities

 Gives the President the authority to establish National
 Measurements

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Historic Sites Act of 1935

- Established national policy for preservation of sites, buildings, and objects of national significance
- Created the Historic American Building Survey (HABS) and the Historic American Engineering Record (HAER)
- Created the National Historic Landmarks Program
- · Authorizes federal acquisition of historic properties
- Gives federal government the authority to protect/preserve/ conserve and establish museums

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Reservoir Salvage Act of 1960

- Requires federal agencies to notify the Secretary of the interior in writing before constructing or licensing the construction of a dam
- Requires the Secretary of the Interior to cause a survey to be made of the area proposed to be flooded for historical and archeological data
- · Provides for the collection and preservation of significant data
- Authorizes the appropriation of funds to carry out the purposes of this Act

Primary Federal Laws and Executive Orders Directing the Management of Cultural Resources on Forest Service Lands

The National Environmental Policy Act of 1969 (NEPA)

- Requires heritage resources be taken into account during the environmental analysis process
- Provides national direction that 106 consultation (NHPA) be completed prior to signing decision documents

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Executive Order 11593 (1972)

- Directs federal agencies to treat properties considered eligible for listing in the NRHP as if they were listed on the NRHP
- Requires agencies to survey all their landholdings and nominate all significant siles to the NRHP

The requirements of this EO were incorporated into the 1976 amendments to the NHPA

Archeological and Historic Preservation Act of 1974 (Moss-Bennett)

- Extended the provisions of the Reservoir Salvage Act of 1960 to cover any alteration of the terrain caused as a result of any
- federal construction project or federally licensed activity or program

 Gives the Secretary of the Interior the authority to begin survey and
 recovery work before receiving notification from the constructing agency
- Authorizes federal agencies to expend appropriated project funds to undertake archeological surveys and salvage excavations

American Indian Religious Freedom Act (1978)

- Requires federal agencies to evaluate their policies and procedures to ensure protection of Indian religious freedom
- Does not mandate access to public land, and Indian religious concerns do not automatically take precedence over other valid concerns

Archeological Resources Protection Act of 1979 as amended (ARPA)

- Enhanced the permitting requirements of the Antiquities Act of 1906
 Strengthened the prohibitions and clarified the definitions of the Antiquities Act of 1906
- Established civil and criminal penalties for the unauthorized excavation, removal, damage, alteration, or defacing of or trafficking in archeological resources
- Exempts information about the nature and location of archeological resources from the Freedom of Information Act

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Native American Graves Protection and Repatriation Act of 1990 (NAGPRA)

- Requires agencies to prepare inventories of human remains in their possession
- Requires agencies to consult with affiliated Tribal groups regarding the treatment and disposition of these remains.
- Established a process for the return (upon request) of skeletal remains, grave goods, and other sacred objects to their groups of cultural affiliation
- Requires ARPA permit, Tribal consultation, and prior determination of ownership and disposition of materials before excavation of human remains or funerary objects from federal or tribal lands can take place

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Executive Order 13007 (1996) - Sacred Sites

- Requires federal agencies to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners
- Requires federal agencies to avoid adversely affecting the physical integrity of such sacred sites and to notify Tribes of policies or actions that might restrict access to or have the potential to adversely affect sacred sites

Executive Order 13175 (2000) - Consultation and Coordination with Indian Tribal Governments

 Directs federal agencies to establish regular and meaningful consultation and collaboration with Tribal officials in the development of policies or actions that have Tribal implications.

Executive Order 13287 (2003) Preserve America

- Makes it the policy of the federal government to provide leadership in preserving. America's heritage by actively advancing the protection, orthocoment, and contemporary use of the historic properties owned by the tederal government and by promoting intergovernmentatiooperation, and partnerships for the preservation and use of historic properties.
- Requires federal agencies to prepare an assessment of the current status of its inventory of historic properties, the general needs of such properties, and steps underway or planned to meet those management needs

Executive Order 13327 (2004) - Federal Real Property Asset Management

- Requires federal agencies to account for cultural resource sites as real property (heritage assets)
- Requires each federal agency's Senior Property Officer to incorporate planning and management requirements for heritage assets as directed by the Preserve America E.O. 13287
 - see Statement of Federal Financial Accounting Standards (SFFAS) 29 Heritage Assets and Stewardship Land and also Interm Directive 6509 LTN-2000-14

Other Federal Laws (USFS) worth mentioning that include management of cultural resources

- · Federal Land Policy and Management Act of 1976
- National Forest Management Act of 1976



The Project



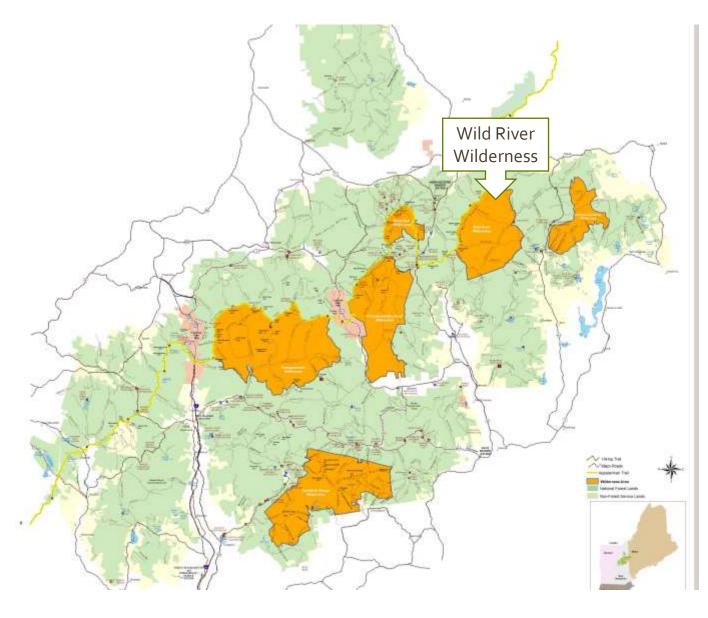
Wild River Wilderness Shelter Removal-Section 106

Undertaking:

- Removal of three hiking shelters from newly designated Wilderness Area proposed in 2007.
- One shelter determined eligible for the National Register of Historic Places
- Removal of eligible shelter is an adverse effect

Mitigation:

- Development of thematic overview of hiking shelters on the White Mountain National Forest
- Interpretive information about hiking shelter history
- Memorandum of Agreement signed in 2010.



White Mountain National Forest Wilderness Areas

The White Mountain National Forest contains approximately 148,000 acres of Congressionally-designated Wilderness.

The Wilderness Act of 1964



The signing of the Wilderness Act into law by President Lyndon B. Johnson on September 3, 1964.

Definition of Wilderness

"A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value."

Historic Structures in Wilderness

All federal agencies who manage Wilderness have struggled with how to balance the Wilderness Act and the NHPA.

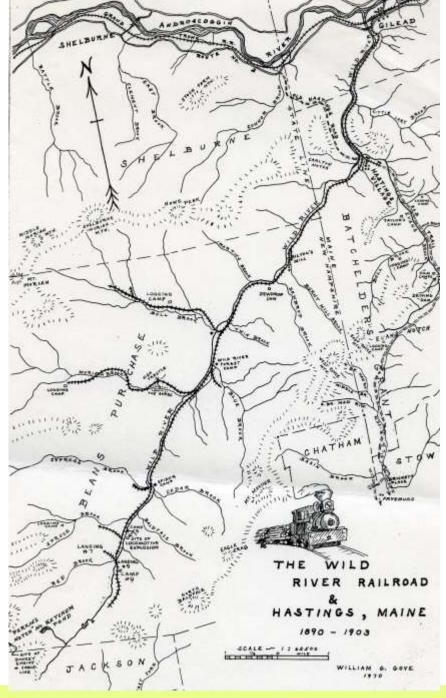
Current WMNF policy is to reduce the developed recreation footprint in Wilderness.

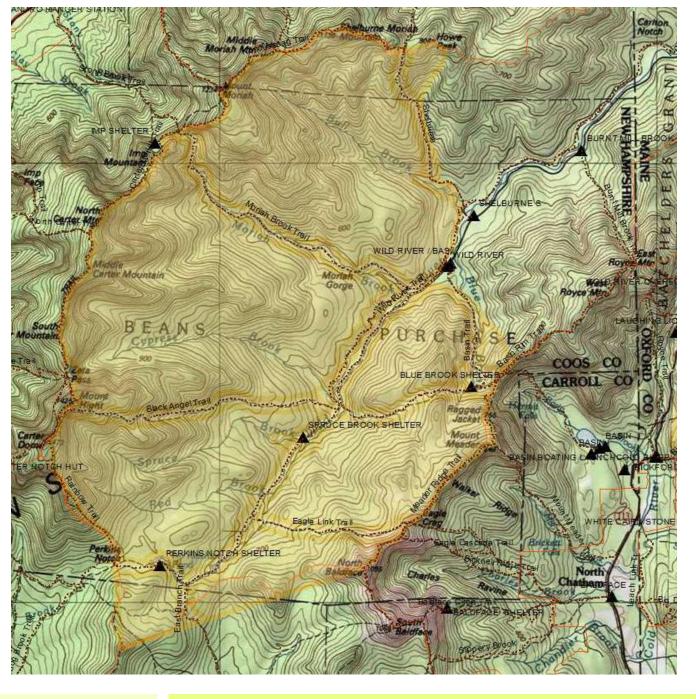
National Wilderness Preservation System



The Wild River Railroad







The Wild River Wilderness

The United States Congress established the 24,032 acre Wild River Wilderness in 2006 with the passage of the New England Wilderness Act.

The majority is in the unincorporated town of Bean's Purchase, near the Maine border in Coos County.

Wild River Shelters



Blue Brook Shelter (1959)



Perkins Notch Shelter (1957)



Spruce Brook Shelter (1964)

Methodology

• Defining "Shelter": Hiking shelters intended for overnight use and designed to be unenclosed with no door or other entranceway barrier.









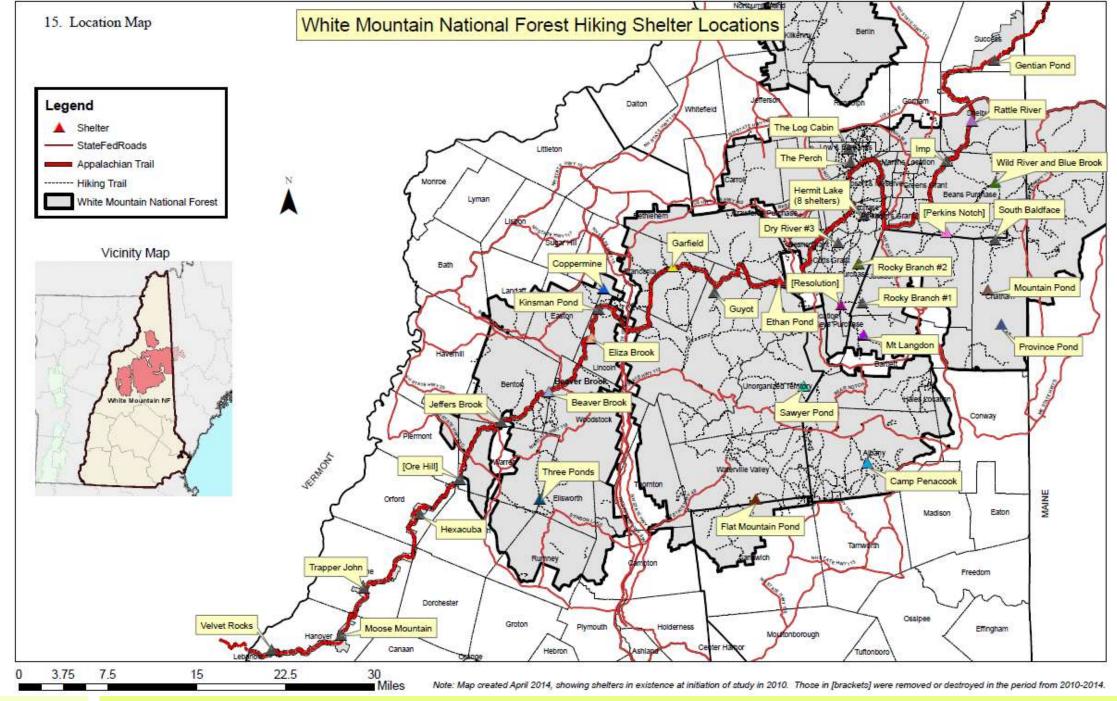








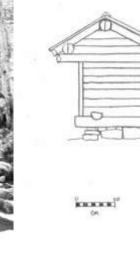




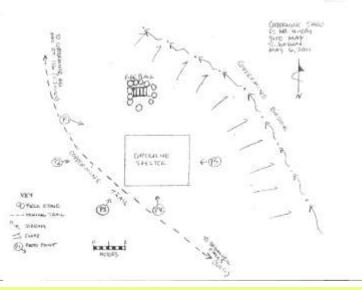
Methodology

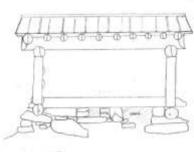
- Develop historical context for shelter system
- Historical background for each of the existing 41 shelters (nonextant shelters referenced as examples of historic styles)
- Visit all shelters approaching 50 years old
 - Document with photos, measured drawings, detailed description
- Newer shelters: one shelter of each type visited and documented.
- Preparation of NHDHR Historic District Area
 Form to assess the historic significance of
 the shelter system, define which shelters
 contribute to significance, define boundary.











loopor



Historic Context



Historical White Mountain "Wilderness"



Topographical Map of the State of New Hampshire by Samuel Holland, 1784.

"A temporary hut..."

In travelling through New-Hampshire, there are now few places so remote from public houses, or hospitable inhabitants, as to oblige the traveller to lodge in the woods; but when this happens, either by necessity or choice, a temporary hut may be constructed, in an hour, by a person furnished with an axe.

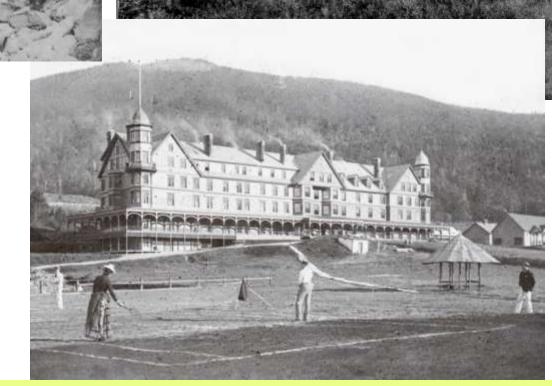
-Jeremy Belknap, 1792



A LODGE IN THE WILDERNESS

White Mountain Tourism

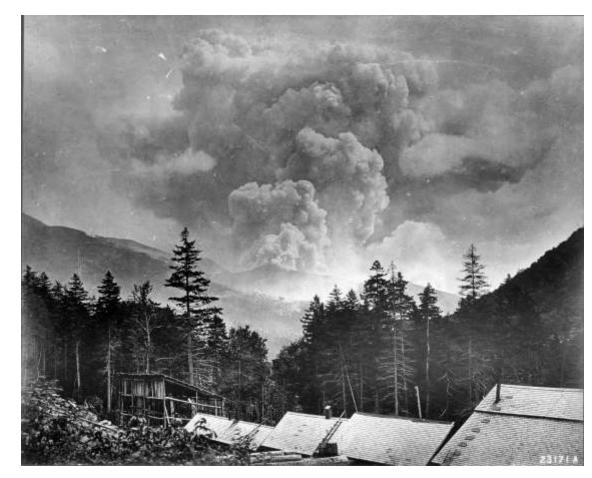




Logging

Large scale railroad logging operations left clearcut slopes, sparked massive forest fires.





Conservation Movement (1850-1920)

- Rise of hiking and camping as recreational activities, and establishment of outdoor clubs to sustain them.
- Establishment of US Forest Service (1905) and National Park Service (1916).
- Passage of the Weeks Act in 1911 and establishment of the White Mountain National Forest in 1918.





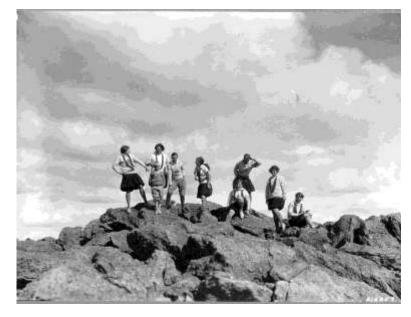
"Forestry Pioneers" on Mt Carrigain, 1919.

Outdoor Clubs in the White Mountains

Local groups formed with common themes of promoting the enjoyment of hiking and wilderness, building new hiking trails, and restoring trails damaged by logging operations.

- Appalachian Mountain Club (AMC), 1876
- Wonalancet Out Door Club (WODC), 1892
- Dartmouth Outing Club (DOC), 1909
- Randolph Mountain Club (RMC), 1910







Trail Building

"It is suggested that permanent camps be established by members of the Club at such points of interest in its work as Mount Adams or the East Branch of the Pemigewasset. Such camps will serve as centers for the working parties and may be built so as to last several years. A bark camp, well constructed, would do service, with a few repairs, more than one summer; but a log and board camp much more permanent can be made at a trifling cost."

-Charles Lowe of the AMC, 1876



AN IMPROVISED SHELTER

"A System of Shelters"

"...for a necessary corollary of the trail system itself is a system of shelters where those using the trails may escape from wind, rain, darkness, and fatique. And so, located in strategic spots, by unfailing water springs, we have now fifteen open shelters, which, taken with the huts and camps... make it impossible for a tramper anywhere on our trail system ever to be beyond reasonable walking distance from a comfortable place to spend the night or escape from stormy weather. "

-Karl Harrington of the AMC, 1926



Appalachian Trail

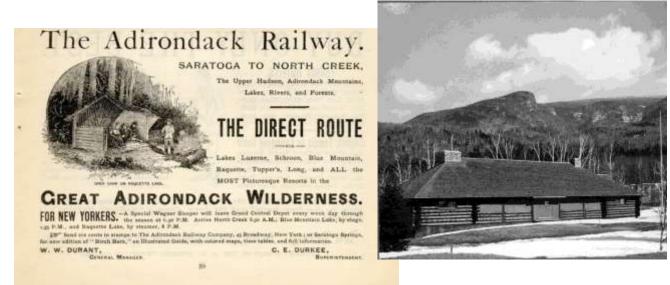
 Appalachian Trail, proposed in 1921, incorporated and emulated AMC





"Adirondack Rustic" Architecture (c.1875-1930)

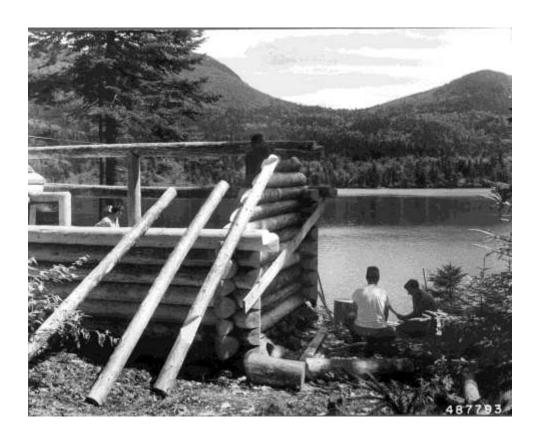
- Shelter design became more formalized in the 1890s
- "Adirondack" lean-to: part of larger architectural style developed in the Adirondack Mountains
- Emphasis on native materials to blend into woodland setting
- Style adopted by architects designing recreational structures in National Parks and Forests in 1920s, and Public Works Programs of 1930s





Shelter Locations

- For trail crew use
- Logging camp reuse
- Refuges
- Scenic destinations
- Fill in gaps to complete the "long line of camps and shelters across the White Mountains." (Harrington, 1924)



Shelter Setting

- Early shelters (pre 1930s) were often built facing a cliff or large boulder for protection and to reflect heat.
- Early shelters often placed immediately adjacent to the trail.









Shelter Management

- Constant maintenance, replacement, shifting of location
- Difficulty of maintaining aging structures in remote locations
- Overcrowding, sanitation, and resource damage issues
 - "Campsite Betterment Plan": Major renovations to shelter system in the early 1970s
 - Carry in-carry out program
 - Shelter removals / tent platforms
 - Caretakers
 - Restricted areas
 - Composting toilets
- AT "shelter creep": too many, too big, not rustic enough











The Shelters



White Mountain Shelters

Style	Extant Shelters	Date
Birch Bark	NONE	c.1900
Log Shed	NONE	1910s
Small-Log Saltbox	NONE	1920s
	Mountain Pond	1922
FS Vertical and Horizontal Log	Wild River	1922
5	Province Pond	1934
USFS Plan for Forest Camp Adirondack Shelter-1935	Coppermine	1935
•	Mt. Langdon	1936
"Plans for Appalachian Trail Lean-to" – 1939	Perkins Notch	1957 (removed 2011)
Gabled	NONE	c.1940
DOC Large Overhang	NONE	c.1930-1970
	Camp Penacook	1957
WMNF Adirondack Shelter-1958	Sawyer Pond	1958
William Change Shorter 1900	Dry River #3	1963
12603	Flat Mtn Pond	1964
AMC Vertical Pole	Ethan Pond	1957
	Hermit Lake 1	1965-1967
	Hermit Lake 2	1965-1967
"24 Ft Adirondack Shelter, 8-Man"-1965	Hermit Lake 3 Hermit Lake 4	1965-1967 1965-1967
	Three Ponds	c.1966
(FS Drawing No. 7300-60050)	Hermit Lake 5	1967
	Rocky Branch #2	c.1967 (removed 2015)
	Rocky Branch #1	1974
	Rattle River	1963
USFS 16' Appalachian Trail	Trapper John	1973
USFS "Adirondack Shelter, Five Man"	South Baldface	1967
(FS Drawing No 7300-60059)		
	Hermit Lake 6	1967
USFS "Adirondack Shelter, 10-12 Man"	Hermit Lake 7	1968-1969
(FS Drawing No. 7300-60131)	Hermit Lake 8	1968-1969
	Gentian Pond	1974
	Guyot	1977
Mahoosuc	Imp	1980
	Log Cabin	1985
	Kinsman Pond	2007
DOCM-4:6-4 Annal-ski Turil I 4-	Beaver Brook	1993
DOC Modified Appalachian Trail Lean-to	Ore Hill Moose Mountain	2001 (burned 2011) 2004
	Resolution	1932 (removed 2011)
	The Perch	1932 (removed 2011)
	Blue Brook	1959 (relocated 2009)
Unique Design	Jeffers Brook	1981
omque Design	Hexacuba	1989
	Velvet Rocks	2007
	Eliza Brook	2010
	Garfield Ridge	2011

- Birch Bark, c.1900
 - First shelters intended for recurring use
 - Shed lean-to covered with sheets of birch bark
 - Required frequent maintenance and repair
 - None remaining







- Log Shed, c. 1910-1920
 - Unpeeled horizontal logs, notched back corners
 - Low shed roof line
 - Little to no foundation
 - None remaining







- Small Log Saltbox, c.1920s
 - small diameter logs reflecting young age of forest
 - Notched on all four corners with partially enclosed front
 - Stacked stone foundation
 - Asymmetrical "saltbox" roofline
 - None remaining

"...the most economical and durable type construction discovered up to date...is peeled logs laid notch downwards, and a bark roof." -Karl Harrington of AMC, 1924









- Forest Service Vertical and Horizontal Log
 - First shelters built by the USFS (1920-1934)
 - Earliest style with extant shelters
 - Wild River (1922), Mountain Pond (1922), Province Pond (1934)
 - Vertical log walls
 - Saltbox roofline





707-HERMIT LAKE SHELTER U. S. F. S. IN TUCKERMAN RAVINI

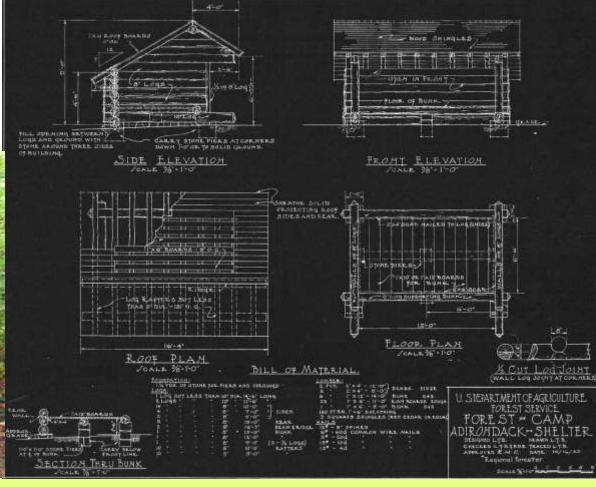


• USFS Plan for Forest Camp Adirondack Shelter-1935

• The Civilian Conservation Corps used this standard plan for a number of shelter projects

• Two still in use: Coppermine (1935) and Mt. Langdon (1936)





• "Plans for Appalachian Trail Lean-to" – 1939

 Plan issued first in 1939 by the Appalachian Trail Conference, reissued multiple times through the 1950s

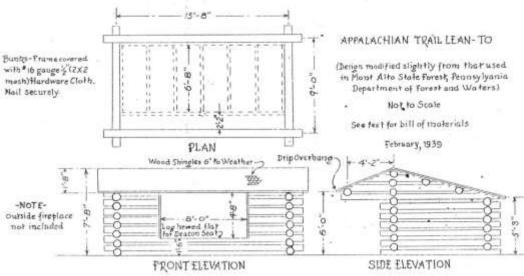
• Although built in 1957 and not on the Appalachian Trail, Perkins Notch was the only White Mountain shelter

known to be of this style

 Wire mesh bunks in plan (though Perkins Notch had floor boards) and trough to trap porcupines inside opening.

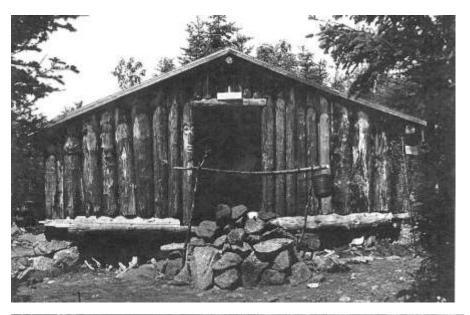






- Gabled, c.1940
 - Open cabin style used by AMC around 1940
 - None remain







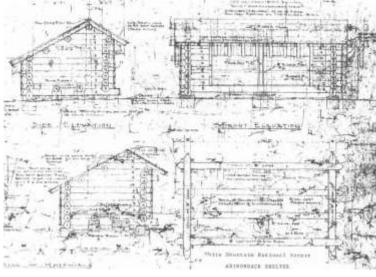
- Dartmouth Outing Club-Large Overhang
 - Eleven shelters were built by the Dartmouth Outing Club (DOC) in the 1930s, nine between 1955-1980.
 - Large front overhang to facilitate snowdrifts at the opening of the shelter for winter camping
 - None remain





- WMNF Adirondack Shelter- 1958
 - horizontal logs, saddle-notched at all four corners, a partially enclosed front and a salt-box style roof with slight overhang in front.
 - Four existing shelters in this style:
 - Camp Penacook-1957
 - Sawyer Pond-1958
 - Dry River No. 3-1963
 - Flat Mountain Pond-1964

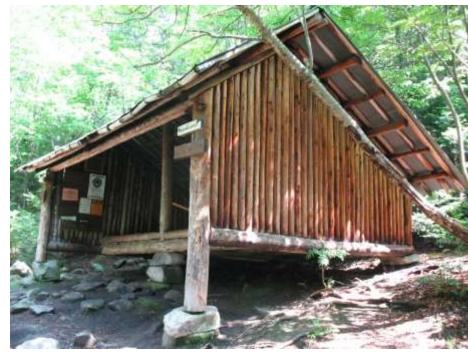








- AMC Vertical Pole
 - "a new concept in construction, differing from the regular A.M.C. pattern. Vertically stockaded, peeled spruce logs form the side-walls; it has the usual open front, and is salt-box in shape" (Maker 1957: 537-8.)
 - Three shelters known to have been built in this style: Ethan Pond (1957), Great Gulf (1959), Eliza Brook (1963).
 - Ethan Pond is last one standing.





"Operation Outdoors"

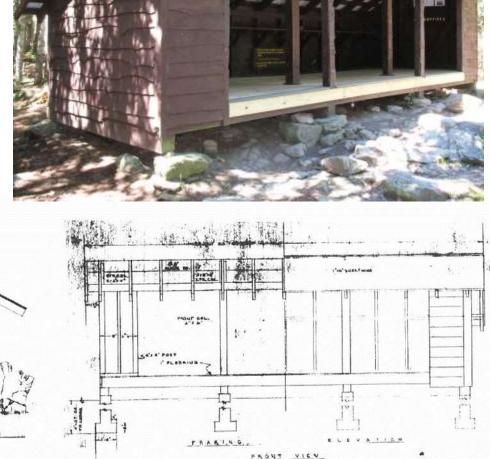
- By the late 1950s and 1960s, the Forest Service was aggressively building new recreation facilities, and anticipating increased use.
- Operation Outdoors was a USFS initiative to modernize facilities
- USFS developed several standard shelter designs, which used dimensional lumber that could be prefabricated and airlifted to the site
- AMC shelters followed USFS designs



- "24 Ft Adirondack Shelter, 8-Man"-1965
 - USFS planFrame shelter, dimensional lumber
 - Three bay, saltbox shape
 - Some straight edged siding, some live-edge
 - Hermit Lake 1-5 (1965-1967), Three Ponds (1966),
 Rocky Branch 2 (1967), Rocky Branch 1 (1974)







- USFS 16' Appalachian Trail
 - Shorter 2-bay version
 - Common on AT on southern National Forests, also examples in Maine and Vermont.
 - Rattle River (1963) and Trapper John (1973)



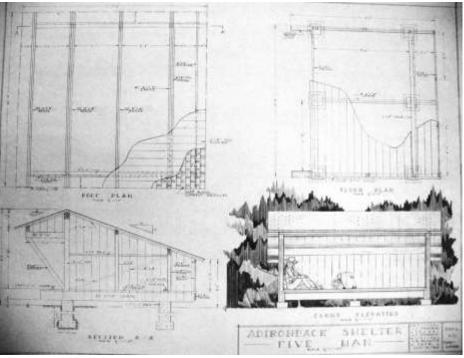


USFS "Adirondack Shelter, Five Man"

- Large roof overhang in front, and vertical tongue and groove siding.
- Firewood storage area under the roof along the back of the shelter
- With the removal of Spruce Brook (1964) from the Wild River Wilderness in 2009, South Baldface (1966) is the only remaining shelter of this style.



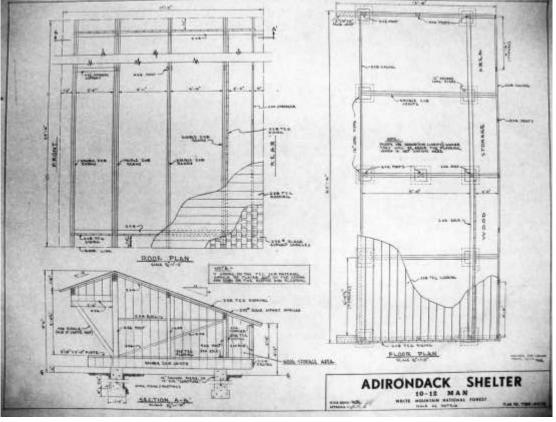




- USFS "Adirondack Shelter, 10-12 Man"
 - Larger version of Five Man
 - Hermit Lake shelters 6, 7, 8, built 1967-1969.
 - Sliding doors added later to keep out snow.





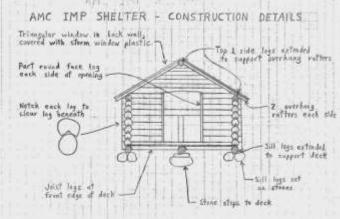


"Mahoosuc"

- AMC began to use open log cabin style shelters on the AT in the Mahoosuc Range in Maine, late 1970s-1980s
- Return to native materials for comparative longevity and lower cost
- Gentian Pond (1974), Guyot (1977), Imp (1980),
 RMC's Log Cabin (1985), Kinsman Pond (2007)









- DOC Modified Appalachian Trail Lean-to
 - Variation on the original "Plans for Appalachian Trail Lean-to 1939" style without notched corners.
 - Beaver Brook (1993), Ore Hill (2001-2011), Moose Mountain (2004)







Unique Designs

- Resolution (1932)
- The Perch (1948)
- Blue Brook (1959, moved 2009)
- Jeffers Brook (1981)
- Hexacuba (1989)
- Velvet Rocks (2007)
- Eliza Brook (2010)
- Garfield Ridge (2011)



















Conclusion



Conclusion

- The White Mountain National Forest Hiking Shelter System was determined eligible for listing in the National Register of Historic Places for its significance to the development of outdoor recreation in New Hampshire and the United States as a rare and early example of a hiking shelter network, and as examples of the evolution of the Adirondack Rustic style
- 22 of the 41 shelters are considered contributing to the system's historic significance, and 19 are non-contributing, mostly because they are not yet 50 years old.
- The boundary of the district was defined as a 20 meter radius around each contributing shelter.
- Evaluations and decisions concerning individual shelters can be made with full consideration and understanding of the shelter system as a whole and its historic significance.

Shelter Facts

- Standing in 2010, when study began: 41
- Standing in 2015: 37
- More than 50 years old: 19
- Less than 10 years old: 4
- Replaced between 2010 and 2015: 2
- Maintained between 2010 and 2015: 7
- Last shelters added to system: 1981 (2001)
- Original shelter in original location: 10
- Styles with only one remaining example: 2













